

ABSTRACT OF THE DISCLOSURE

New ligands, compositions, metal-ligand complexes and arrays with pyridyl-amine ligands are disclosed that catalyze the polymerization of monomers into polymers. Certain of these catalysts with hafnium metal centers have high performance characteristics, including higher comonomer incorporation into ethylene/olefin copolymers, where such olefins are for example, 1-octene, isobutylene or styrene. Certain of the catalysts are particularly effective at polymerizing propylene to high molecular weight isotactic polypropylene in a solution process at a variety of polymerization conditions.